CALIFORNIA DIVISION OF MINES AND GEOLOGY

SUPPLEMENT NO. 1 to FAULT EVALUATION REPORT FER-95

May 6, 1980

1. Name of faults.
   Monte Vista and related faults.

2. Location of faults.
   Santa Clara County; portions of the Cupertino, Mindego Hill, and Palo Alto 7.5-minute quadrangles.

3. Reason for evaluation.
   Additional information received subsequent to the completion of FER-95, January 10, 1980.

4. List of references cited.

Bedrossian, T.L., 1980a, Fault evaluation report for the Shannon, Monte Vista, and related faults: California Division of Mines and Geology FER-95, 18 p., 5 figs.

Bedrossian, T.L., 1980b, Fault evaluation report for the Berrocal fault, northwest segment: California Division of Mines and Geology FER-98.

Bryant, W.A., 1980, Fault evaluation report for the Sargent fault: California Division of Mines and Geology FER-96.

Cotton, William, and Associates, 1978, Analysis of the geotechnical hazards of Los Altos Hills, Santa Clara County, California: Consulting report prepared for the Town of Los Altos Hills, 42 p; includes accompanying Geotechnical Map Folio and Geotechnical Hazards Map Folio of Los Altos Hills, scale 1" = 400'.

Dibble, T.W., Jr., 1966, Geology of the Palo Alto quadrangle, Santa Clara, California: California Division of Mines and Geology Map Sheet 8, scale 1:62,500 .

Hart, E.W., 1977 (being revised), Fault hazards zones in California: California Division of Mines and Geology Special Publication 42, 24 p.

Rogers, T.H.,and Armstrong, C.F., 1973, Environmental geologic analysis of the Monte Bello Ridge Mountain study area, Santa Clara County, California: California Division of Mines and Geology, Preliminary Report 17, 45 p.

Rogers, T.H., and Williams, J.W., 1974, Potential seismic hazards in Santa Clara County, California: California Division of Mines and Geology, Special Report 107, 39 p., 6 plates.

Sorg, D.H., and McLaughlin, R.J., 1975, Geologic map of the Sargent-Berrocal fault zone between Los Gatos and Los Altos Hills, Santa Clara County, California: U.S. Geological Survey, Miscellaneous Field Studies, Map MF-643, scale 1:24,000.

Vanderhurst, Lee, unpublished, Preliminary copy of mapping to be used in masters thesis, San Jose State University, scale 1:24,000.

5. Summary of supplementary data.

Pursuant to the completion of FER-95, a report on the geotechnical hazards of Los Altos Hills (William Cotton and Associates, 1978) was brought to my attention. This report describes the geology and geotechnical hazards of an area at the northwesternmost end of the Monte Vista fault zone depicted by Sorg and McLaughlin (1975) and described in FER-95 (Bedrossian, 1980a). However, the area covered in the Los Altos Hills study was not mapped in detail by Sorg and McLaughlin (see Figure 1, this supplement). A comparison of Figure 2 (this supplement) with Figures 2G and 2H of FER-95 indicates that the Monte Vista fault of William Cotton and Associates (1978) is in the general, but not precise, vicinity of traces mapped by Dibblee (1966) and Vanderhurst (unpublished). The Altamont and Berrocal faults of William Cotton and Associates (1978) correspond to, but again do not show precise agreement with, fault traces in the Monte Vista fault zone mapped by Dibblee (1966) and Rogers and Williams (1974). Rogers and Armstrong (1973),

According to William Cotton and Associates (1978, p. 11):

> "The locations of the traces of the Berrocal, Altamont and Monte Vista faults as they cross the Los Altos Hills region have been established primarily on the basis of the distribution of bedrock geology and topography. The faults have a northwest trend and are inclined to the southwest at angles ranging from nearly zero to as much as 70 degrees...Although the faults are believed to have some oblique or lateral displacement they are primarily characterized by vertical (i.e. dip-slip) displacements. The older rocks of the Francsican Complex have been thrust upward and to the northeast over the younger bedrock materials such as the Santa Clara formation. The cross cutting of the Santa Clara bedrock by these faults indicate that the fault activity is younger than the Santa Clara deposits (i.e. 1 or 2 million years)."

William Cotton and Associates indicate that there is no clear evidence for Holocene activity in the Los Altos Hills area. However, it is

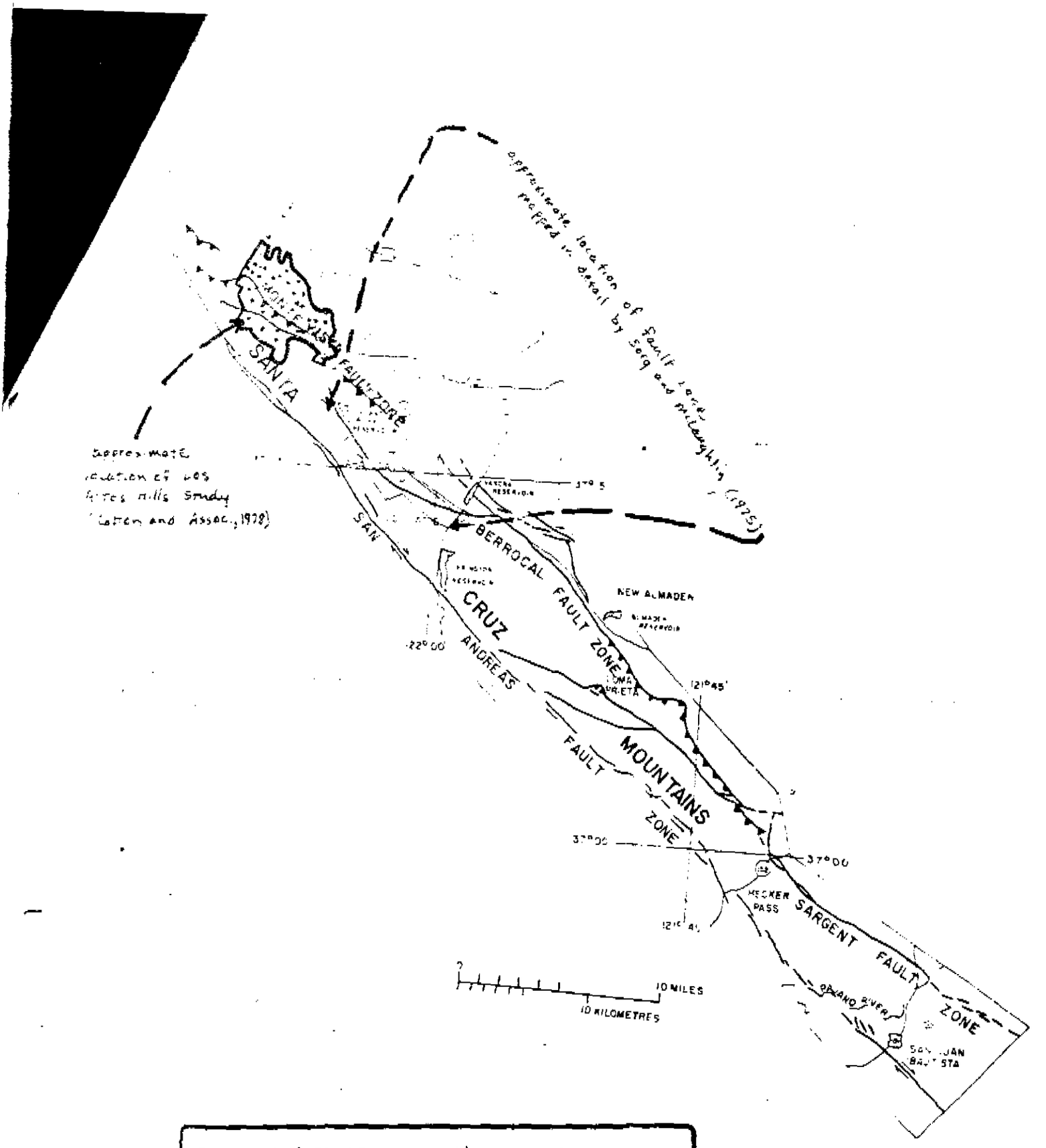

Figure 1 (FER-95, supp. 1) Approximate location of Los Altos Hills study area. Base map modified from Sorg and McLaughlin (1975)

their opinion that the fault system should be considered potentially active, based on young fault-related feature documented to the south (along the Sargent-Berrocal fault system). These features are discussed in FER-96 (Bryant, 1980) and FER-98 (Bedrossian, 1980b).

Figure 2 (this supplement) shows the Monte Vista and related faults in the Los Altos Hills to be cutting Quaternary alluvial deposits. Discussions with W. Cotton (personal communication, May 6, 1980) indicate that this is a drafting error on their part and that the faults are shown as dotted across the same areas on the more detailed folio maps which accompany the report.

6. Aerial photo interpretations and field observations.

Aerial photography and field observations in the Los Altos Hills area are summarized on Figures 2G and 2H in FER-95 (Bedrossian, 1980a). No new investigations were made for this supplement.

7. Conclusions.

A. Although William Cotton and Associates (1978) consider the Monte Vista and related faults to be potentially active, there is no clear geologic evidence for their activity in the Los Altos Hills during Holocene time.

B. According to W. Cotton (personal communication, May 6, 1980), faults mapped across Quaternary alluvial deposits (Figure 2, this supplement) are drafting errors and should be mapped as concealed.

C. Faults mapped by William Cotton and Associates (1978) in the Los Altos Hills do not meet the present criteria of being

"sufficiently active" for zoning under the Alquist-Priolo Act (see Hart, 1977).

8. Recommendations.

A. Because there is no evidence of Holocene displacement along the Monte Vista and related faults in the vicinity of Los Altos Hills, these faults should not be zoned at this time.

B. New information regarding the location and activity of faulting should be evaluated for possible zoning in the future.

9. Supplement report completed on May 6, 1980 by:

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I agree with the recommendations
Ellett
5/5/80